

## Case 3422

### ***Helops* Fabricius, 1775 (Insecta, Coleoptera, TENEBRIONIDAE): proposed conservation of usage by designation of *Tenebrio caeruleus* Linnaeus, 1758 as the type species**

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**Abstract.** The purpose of this application, under Article 70.2 of the Code, is to conserve the current usage of the widely used name *Helops* Fabricius, 1775 for a genus of tenebrionid beetles from Western Palaearctic, Nearctic and Neotropical Regions by designation of *Tenebrio caeruleus* Linnaeus, 1758 as the type species. The type species of *Helops* Fabricius, 1775 is at present *Tenebrio lanipes* Linnaeus, 1771 (currently *Stenomax lanipes*). The use of the original designation would seriously affect the nomenclatural stability of long-recognized generic and subtribal concepts in the tribe HELOPINI. It is proposed that all type fixations for the nominal genus *Helops* Fabricius, 1775 before that of *Tenebrio caeruleus* Linnaeus, 1758 by Hope (1840) be set aside.

**Keywords.** Nomenclature; taxonomy; Coleoptera; TENEBRIONIDAE; HELOPINI; HELOPINA; CYLINDRINOTINA; *Helops*; *Stenomax*; *Anteros*; *Helops lanipes*; *Tenebrio caeruleus*; darkling beetles; Western Palaearctic, Nearctic and Neotropical Regions.

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1. Fabricius (1775, p. 257) introduced the generic name *Helops* for the following nine available species: *Tenebrio caeruleus* Linnaeus, 1758, *T. lanipes* Linnaeus, 1771, *Helops serratus* Fabricius, 1775, *H. equestris* Fabricius, 1775, *H. rufipes* Fabricius, 1775, *H. luridus* Fabricius, 1775, *H. ater* Fabricius, 1775, *T. quisquilius* Linnaeus, 1761 and *H. glaber* Fabricius, 1775. No type species was originally designated. Of these, only *Tenebrio caeruleus* Linnaeus, 1758 (p. 418) currently remains in *Helops*, which is the type genus of the tribe HELOPINI Latreille, 1802 and subtribe HELOPINA Latreille, 1802.

2. Latreille (1810, p. 429) subsequently designated *Tenebrio lanipes* Linnaeus, 1771 (p. 533) as the type species of *Helops* Fabricius, 1775. Latreille's type fixation was

overlooked by subsequent tenebrionid workers until Iablokoff-Khnzorian (1964) recognized that this was the first valid type species designation. *Tenebrio lanipes* Linnaeus, 1771 is a junior subjective synonym of *Tenebrio aeneus* Scopoli, 1763 (currently *Stenomax (Stenomax) aeneus*; tribe HELOPINI, subtribe CYLINDRINOTINA Español, 1956); synonymy by Schawaller (1995). *Tenebrio lanipes* Linnaeus, 1771 was designated as the type species of *Stenomax* Allard, 1876 by Cherney (2005, p. 387).

3. Westwood (1838, p. 32) designated *Helops caraboides* Panzer, 1794 (a common European species) as the type species of *Helops*. This designation was later accepted by Blanchard (1844, plate 51, fig. 9), Duponchel (1845, p. 524) and other authors. This species was not originally included in the genus *Helops* by Fabricius (1775), and therefore cannot be used as the type species (Article 67.2 of the Code). *Helops caraboides* Panzer, 1794 is a junior subjective synonym of *Tenebrio laevioctostriatus* Goeze, 1777 (currently *Nalassus (Nalassus) laevioctostriatus* (Goeze, 1777); tribe HELOPINI, subtribe CYLINDRINOTINA).

4. Hope (1840, p. 133) subsequently designated *Tenebrio caeruleus* Linnaeus, 1758 as the type species of *Helops* Fabricius, 1775. Gebien (1943, p. 416) also used *Tenebrio caeruleus* as the type species of *Helops* in the most recent catalogue of the world TENEBRIONIDAE.

5. Acceptance of the first valid type species fixation by Latreille (1810) would seriously affect the nomenclatural stability of long-recognized generic and subtribal concepts in the tribe HELOPINI. *Helops* Fabricius, 1775 would take priority over *Stenomax* Allard, 1876 as a senior objective synonym and species currently in *Helops* would be referred to the junior synonym *Anteros* Laporte, 1840 (p. 235). The type species of *Anteros* Laporte, 1840 is *Helops chalybaeus* Latreille, 1804, a junior subjective synonym of *Helops caeruleus* (Linnaeus, 1758). *Anteros* Laporte, 1840 is a junior homonym of *Anteros* Hübner, 1819 (p. 77) (Lepidoptera) and a senior homonym of *Anteros* Blanchard, 1845 (Coleoptera, CERAMBYCIDAE). Therefore a new name would be necessary for the species presently in the genus *Helops*, typified by *Tenebrio caeruleus* Linnaeus, 1758. Additionally, the subtribe HELOPINA would replace CYLINDRINOTINA and the junior synonym ENOLOPINIA Solier, 1848 would replace HELOPINA. It is for this reason that the proposal by Iablokoff-Khnzorian (1964) to use *H. lanipes* as the type species of *Helops* has been disregarded by subsequent workers while the concepts of Hope (1840) and Gebien (1943) remain in current usage (Español, 1974; Español & Comas, 1989; Nabozhenko, 2001, 2006; Aalbu et al., 2002a, b). A ruling by the Commission is necessary to maintain the current concept of the diverse, well-known and widespread tenebrionid genus *Helops* Fabricius, 1775.

6. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary power to set aside all type fixations of for the nominal genus *Helops* Fabricius, 1775 before that of *Tenebrio caeruleus* Linnaeus, 1758 by Hope (1840);
- (2) to place on the Official List of Generic Names in Zoology the name *Helops* Fabricius, 1775 (gender: masculine), type species *Tenebrio caeruleus* Linnaeus, 1758 by the fixation of Hope (1840) as ruled in (1) above;
- (3) to place on the Official List of Specific Names in Zoology the name *caeruleus* Linnaeus, 1758 as published in the binomen *Tenebrio caeruleus* (specific name of the type species of *Helops* Fabricius, 1775).

## References

**Aalbu, R.L., Flores, G.E. & Triplehorn, C.A.** 2002a. Tenebrionidae. Pp. 499–512 in Bousquets, J.L. & Morrone, J.J. (Eds.), *Biodiversidad, taxonomía y biogeografía de arthropodos de Mexico: Hacia una síntesis de su conocimiento*, vol. 3. Universidad Nacional Autónoma de Mexico, Mexico.

**Aalbu, R.L., Triplehorn, C.A., Campbell, J.M., Brown, K.W., Somerby, R.E. & Thomas, D.B.** 2002b. 106. Tenebrionidae Latreille 1802. Pp. 463–509 in Arnett, R.H.J., Thomas, M.C., Skelley, P.E. & Frank, J.H. (Eds.), *American beetles. Volume 2. Polyphaga: Scarabaeoidea through Curculionoidea*. CRC Press, New York.

**Allard, E.** 1876. Révision des Helopides vrais de Lacordaire. *L'Abeille*, **14**: 1–80.

**Blanchard, E.** 1844. Plate 51. In Audoin, J.V., Blanchard, E., Doyère, L. & Milne Edwards, H. Les insectes. Myriapodes, thysanoures, parasites, suceurs et coléoptères. Atlas 1. In Cuvier, G. (Ed.), *Le règne animal distribué d'après son organisation, pour servir de base à l'histoire naturelle des animaux, et d'introduction à l'anatomie comparée*. Fortin, Masson et Cie Librairies, Paris.

**Cherney, L.S.** 2005. Darkling beetles (Coleoptera, Tenebrionidae). *Fauna of Ukraine*, vol. 19. part 10. Coleoptera. 432 pp. Naukova Dumka, Kiev.

**Duponchel, P.A.J.** 1845. *Helops*. P. 524 in d'Orbigny, C.V.D. (Ed.), *Dictionnaire universel d'histoire naturelle*, vol. 6. C. Renard, Paris.

**Español, F.** 1956. Los *Probaticus* de España (Col. Tenebrionidae). *EOS*, **32**: 83–124.

**Español, F.** 1974. Nuevas localizaciones de *Nalassus* ibéricos (Coleoptera, Tenebrionidae). *Boletín de la Real Sociedad Española de Historia Natural*, **72**: 213–217.

**Español, F. & Comas, J.** 1989. Les espèces del gènere *Gunarus* Gozis, de la col·lecció del Museu de Zoologia de Barcelona (Col., Tenebrionidae, Helopinae). *Miscellània Zoològica*, **11**(1987): 165–171.

**Fabricius, J.C.** 1775. *Systema entomologiae, sistens insectorum classes, ordines, genera, species, adiectis synonymis, locis, descriptionibus, observationibus*. xxxii, 832 pp. Officina Libraria Kortii, Flensburgi et Lipsiae.

**Gebien, H.** 1943. Katalog der Tenebrioniden. Teil III. *Mitteilungen der Münchner Entomologischen Gesellschaft*, **33**: 399–430.

**Goeze, J.A.E.** 1777. *Entomologische Beyträge zu des Ritter Linné zwölften Ausgabe des Natursystems*. Th. 1. xvi, 736 pp. Weidmanns Erben & Reich, Leipzig.

**Hope, F.W.** 1840. *The coleopterist's manual, part the third, containing various families, genera, and species, of beetles, recorded by Linneus and Fabricius. Also, descriptions of newly discovered and unpublished insects*. [5], 191 pp. J. C. Bridgewater and Bowdery & Kerby, London.

**Hübner, J.** 1816-[1926]. *Verzeichnis bekannter Schmetterlinge*. 431 pp. Hübner'sche Werke, Augsburg.

**Iablokoff-Khnzorian, S.M.** 1964. Bemerkungen über einige Reitter'sche Typen aus dem Ungarischen Naturwissenschaftlichen Museum (Coleoptera). *Folia Entomologica Hungarica (N.S.)*, **17**: 293–315.

**Laporte, F.L. de Castelnau.** 1840. Histoire naturelle des insectes coléoptères. Tome deuxième. In: *Histoire naturelle des animaux articulés, annelides, crustacés, arachnides, myriapodes et insectes*. vol. 3. 563, [1] pp., 38 pls. P. Duménil, Paris.

**Latreille, P.A.** 1802. Familles naturelles des genres. In: *Histoire naturelle, générale et particulière, des crustacés et des insectes. Ouvrage faisant suite à l'histoire naturelle générale et particulière, composée par Leclerc de Buffon, et rédigée par C.S. Sonnini, membre de plusieurs sociétés savantes*, vol. 3. xii, 13–467, [1] pp. F. Dufart, Paris.

**Latreille, P.A.** 1804. *Histoire Naturelle, générale et particulière des Crustacés et des Insectes*, vol. 10. 445 pp, plates lxxxi-lxxxix. F. Dufart, Paris.

**Latreille, P.A.** 1810. *Considérations générales sur l'ordre naturel des animaux composant les classes des crustacés, des arachnides, et des insectes; avec un tableau méthodique de leurs genres, disposés en familles*. 444 pp. F. Schoell, Paris.

**Linnaeus, C.** 1758. *Systema Naturae*, Ed. 10, vol. 1. 824 pp. Salvii, Holmiae.

**Linnaeus, C.** 1761. *Fauna Svecica sistens Animalia Sveciae Regni: Mammalia, Aves, Amphibia, Pisces, Insecta, Vermes. Distributa per classes & ordines, genera & species.* Ed. 2. [45], 578 pp. Salvii, Stockholmiae.

**Linnaeus, C.** 1771. *Mantissa plantarum altera generum editionis VI. & specierum editionis II.* 588 pp. Salvii, Holmiae.

**Mulsant E.** 1854. *Histoire naturelle des Coléoptères de France. Latigènes.* x, 396 pp. Maison, Paris.

**Nabozhenko, M.V.** 2001. On the classification of the tenebrionid tribe Helopini, with a review of genera *Nalassus* Mulsant and *Odocnemis* Allard (Coleoptera, Tenebrionidae) of the European part of the CIS and the Caucasus. *Entomologicheskoe Obozrenie*, **80**: 627–668 [in Russian, English translation in *Entomological Review*, **81**: 909–942].

**Nabozhenko, M.V.** 2006. A revision of the genus *Catomus* Allard, 1876 and allied genera (Coleoptera, Tenebrionidae) from the Caucasus, Middle Asia and China. *Entomologicheskoe Obozrenie*, **85**: 798–857 [in Russian, English translation in *Entomological Review*, **86**: 1024–1072].

**Panzer, G.W.F.** 1794. *Faunae insectorum Germaniae initia oder Deutschlands Insecten. Zweiter Jahrgang*, Heft 13–24; i–xvi, 1–282 pp., 282 pls. Felsecker, Nürnberg.

**Schawaller, W.** 1995. Taxonomie und Faunistik von *Stenomax aeneus* Scopoli (*lanipes* Linnaeus syn. n.) (Col., Tenebrionidae). *Entomologische Nachrichten und Berichte*, **39**: 205–208.

**Scopoli, I.A.** 1763. *Entomologia Carniolica exhibens insecta Carnioliae indigena et distributa in ordines, genera, species, varietates. Methodo Linnaeana.* I.T. Trattner, Vindobonae. 36, 420 pp., 3 pls.

**Solier, A.J.J.** 1848. Essai sur les collaptérides. *Studi Entomologici*, **1**: 149–370.

**Westwood, J.O.** 1838. Synopsis of the genera of British insects. Pp. 1–48 in: *An introduction to the modern classification of insects, founded on the natural habits and corresponding organization of the different families*, vol. 2. vi, 158 pp. Longman, Orme, Brown, Green & Longmans, London.

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